



Alpha Wire | 711 Lidgerwood Avenue, Elizabeth, NJ 07207  
Tel: 1-800-52 ALPHA (25742), Web: [www.alphawire.com](http://www.alphawire.com)

# Customer Specification

## PART NO. M5525

Construction

			Diameters (In)		
1) Component 1		48 X 1 COND			
a) Conductor		20 (7/28) AWG TC		0.038	
b) Insulation		0.010" Wall, Nom. PVC, Semi Rigid		0.058	
(1) Color Code		Alpha Wire Color Code E			
Cond	Color	Cond	Color	Cond	Color
1	BLACK	17	WHITE/BLUE	33	WHITE/BROWN/VIOLET
2	BROWN	18	WHITE/VIOLET	34	WHITE/BROWN/SLATE
3	RED	19	WHITE/SLATE	35	WHITE/RED/ORANGE
4	ORANGE	20	WHITE/BLACK/BROWN	36	WHITE/RED/YELLOW
5	YELLOW	21	WHITE/BLACK/RED	37	WHITE/RED/GREEN
6	GREEN	22	WHITE/BLACK/ORANGE	38	WHITE/RED/BLUE
7	BLUE	23	WHITE/BLACK/YELLOW	39	WHITE/RED/VIOLET
8	VIOLET	24	WHITE/BLACK/GREEN	40	WHITE/RED/SLATE
9	SLATE	25	WHITE/BLACK/BLUE	41	WHITE/ORANGE/YELLOW
10	WHITE	26	WHITE/BLACK/VIOLET	42	WHITE/ORANGE/GREEN
11	WHITE/BLACK	27	WHITE/BLACK/SLATE	43	WHITE/ORANGE/BLUE
12	WHITE/BROWN	28	WHITE/BROWN/RED	44	WHITE/ORANGE/VIOLET
13	WHITE/RED	29	WHITE/BROWN/ORANGE	45	WHITE/ORANGE/SLATE
14	WHITE/ORANGE	30	WHITE/BROWN/YELLOW	46	WHITE/YELLOW/GREEN
15	WHITE/YELLOW	31	WHITE/BROWN/GREEN	47	WHITE/YELLOW/BLUE
16	WHITE/GREEN	32	WHITE/BROWN/BLUE	48	WHITE/YELLOW/VIOLET
2) Cable Assembly		48 Components Cabled			

a) Twists:	1.7 Twists/foot (min)	
b) Core Wrap	Clear Mylar Tape, 25% Overlap, Min.	
3) Shield:	Alum/Mylar Tape, 25% Overlap, Min.	
a) Foil Direction	Foil Facing Out	
b) Drain Wire	20 (7/28) AWG TC	
c) Braid	TC, 70% Coverage, Min.	
4) Jacket	0.063" Wall, Nom., PVC	0.628 (0.657 Max.)
a) Color(s)	SLATE	
b) Ripcord	1 End 810 Denier Nylon	
c) Print	ALPHA WIRE-* P/N M5525 48C 20 AWG EXXXXXX SHIELDED 75C CMG (UL) C(UL) OR AWM 2343 CE ROHS * = Factory Code <i>[Note: Product may have c(UL) or CSA markings depending upon plant of manufacture.]</i>	

### Applicable Specifications

1) UL	AWM/STYLE 2343	80°C / 300 V <sub>RMS</sub>
	CMG	75°C
2) CSA International	C(UL) TYPE CMG	75°C
	FT4	
3) CE:	EU Low Voltage Directive 2006/95/EC	

### Environmental

1) CE: EU Directive 2011/65/EU(RoHS2):	This product complies with European Directive 2011/65/EU (RoHS Directive) of the European Parliament and of the Council of 8 June 2011. No Exemptions are required for RoHS Compliance on this item. Consult Alpha Wire's web site for RoHS C of C.
2) REACH Regulation (EC 1907/2006):	This product does not contain Substances of Very High Concern (SVHC) listed on the European Union's REACH candidate list in excess of 0.1% mass of the item. For up-to-date information, please see Alpha's REACH SVHC Declaration.
3) California Proposition 65:	The outer surface materials used in the manufacture of this part meet the requirements of California Proposition 65.

### Properties

Physical & Mechanical Properties	
1) Temperature Range	-20 to 80°C
2) Bend Radius	10X Cable Diameter
3) Pull Tension	437 Lbs, Maximum
Electrical Properties	
(For Engineering purposes only)	
1) Voltage Rating	300 V <sub>RMS</sub>
2) Capacitance	40 pF/ft @1 kHz, Nominal Conductor to Conductor
3) Ground Capacitance	72 pF/ft @1 kHz, Nominal
4) Inductance	0.17 μH/ft, Nominal
5) Conductor DCR	10.3 Ω/1000ft @20°C, Nominal
6) OA Shield DCR	1.94 Ω/1000ft @20°C, Nominal

## Other

Packaging	Flange x Traverse x Barrel (inches)
a) 1000 FT	30 x 14 x 12 Continuous length
b) 500 FT	24 x 14 x 12 Continuous length
c) 100 FT	16 x 11 x 8 Continuous length
d) Bulk(Made-to-order)	
	<i>[Spool dimensions may vary slightly]</i>

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# EU/China ROHS CERTIFICATE OF COMPLIANCE

To Whom It May Concern:

Alpha Wire Part Number: M5525

M5525 , RoHS-Compliant Commencing With 11/1/2004 Production

This document certifies that the Alpha part number cited above is manufactured in accordance with Directive 2011/65/EU of the European Parliament, better known as the RoHS Directive, with regards to restrictions of the use of certain hazardous substances used in the manufacture of electrical and electronic equipment. The reader is referred to this Directive for the specific definitions and extents of this Directive. **No Exemptions are required for RoHS Compliance on this item.** It should be noted that this product does not fall within the scope of Directive 2011/65/EU, but this Certificate is offered for cases where this product will be used within EEE that does fit within the Directive's scope. Additionally, Alpha certifies that the listed part number is in compliance with China RoHS "Marking for Control of Pollution by Electronic Information Products" standard SJ/T 11364-2006.

Substance	Maximum Control Value
Lead	0.1% by weight (1000 ppm)
Mercury	0.1% by weight (1000 ppm)
Cadmium	0.01% by weight (100 ppm)
Hexavalent Chromium	0.1% by weight (1000 ppm )
Polybrominated Biphenyls (PBB)	0.1% by weight (1000 ppm)
Polybrominated Diphenyl Ethers (PBDE) , Including Deca-BDE	0.1% by weight (1000 ppm)

The information provided in this document and disclosure is correct to the best of Alpha Wire's knowledge, information and belief at the date of its release. The information provided is designed only as a general guide for the safe handling, storage, and any other operation of the product itself or the one that it will become part of. The intent of this document is not to be considered a warranty or quality specification. Regulatory information is for guidance purposes only. Product users are responsible for determining the applicability of legislation and regulations based on their individual usage of the product.

Authorized Signatory for the Alpha Wire Company:

Dave Watson, Director of Engineering & QA

5/14/2013